FIGURE 1

GCACGAGCG**ATG**TCGCTCGTGCTGCTAAGCCTGGCCGCGCTGTGCAGGAGCGCCGTACCCCGAGAGCCGACCGTT
CAATGTGGCTCTGAAACTGGGCCATCTCCAGAGTGGATGCTACAACATGATCTAATCCCCGGAGACTTGAGGGAC
CTCCGAGTAGAACCTGTTACAACTAGTGTTGCAACAGGGGACTATTCAATTTTGATGAATGTAAGCTGGGTACTC
CGGGCAGATGCCAGCATCCGCTTGTTGAAGGCCACCAAGATTTGTGTGACGGGCAAAAGCAACTTCCAGTCCTAC
AGCTGTGTGAGGTGCAATTACACAGAGGCCTTCCAGACTCAGACCAGACCCTCTGGTGGTAAATGGACATTTTCC
TACATCGGCTTCCCTGTAGAGCTGAACACAGTCTATTTCATTGGGGCCCATAATATTCCTAATGCAAATATGAAT
GAAGATGGCCCTTCCATGTCTGTGAATTTCACCTCACCAGGCTGCCTAGACCACATAATGAAATATAAAAAAAAG
TGTGTCAAGGCCGGAAGCCTGTGGGATCCGAACATCACTGCTTGTAAGAAGAATGAGGAGACAGTAGAAGTGAAC
TTCACAACCACTCCCCTGGGAAACAGATACATGGCTCTTATCCAACACAGCACTATCATCGGGTTTTCTCAGGTG
TTTGAGCCACACCAGAAGAAACAAACGCGAGCTTCAGTGGTGATTCCAGTGACTGGGGATAGTGAAGGTGCTACG
GTGCAGCTGACTCCATATTTTCCTACTTGTGGCAGCGACTGCATCCGACATAAAGGAACAGTTGTGCTCTGCCCA
CAAACAGGCGTCCCTTTCCCTCTGGATAACAACAAAAGCAAGCCGGGAGGCTGGCTGCCTCTCCTCCTGCTGTCT
CTGCTGGTGGCCACATGGGTGCTGGTGGCAGGGATCTATCTAATGTGGAGGCACGAAAGGATCAAGAAGACTTCC
TTTTCTACCACCACTACTGCCCCCCATTAAGGTTCTTGTGGTTTACCCATCTGAAATATGTTTCCATCACACA
ATTTGTTACTTCACTGAATTTCTTCAAAACCATTGCAGAAGTGAGGTCATCCTTGAAAAGTGGCAGAAAAAGAAA
ATAGCAGAGATGGGTCCAGTGCAGTGGCTTGCCACTCAAAAGAAGGCAGCAGACAAAGTCGTCTTCCTTCTTTCC
AATGACGTCAACAGTGTGTGCGATGGTACCTGTGGCAAGAGCGAGGGCAGTCCCAGTGAGAACTCTCAAGACTCT
TCCCCTTGCCTT**TAA**CCTTTTCTGCAGTGATCTAAGAAGCCAGATTCATCTGCACAAATACGTGGTGGTCTACTT
TAGAGAGATTGATACAAAAGACGATTACAATGCTCTCAGTGTCTGCCCCAAGTACCACCTCATGAAGGATGCCAC
TGCTTTCTGTGCAGAACTTCTCCATGTCAAGTAGCAGGTGTCAGCAGGAAAAAGATCACAAGCCTGCCACGATGG
CTGCTGCTCCTTGTAGCCCACCCATGAGAAGCAAGAGACCTTAAAGGCTTCCTATCCCACCAATTACAGGGAAAA
AACGTGTGATGATCCTGAAGCTTACTATGCAGCCTACAAACAGCCTTAGTAATTAAAACATTTTATACCAATAAA
ATTTTCAAATATTGCTAACTAATGTAGCATTAACTAACGATTGGAAACTACATTTACAACTTCAAAGCTGTTTTA
TACATAGAAATCAATTACAGTTTTAATTGAAAACTATAACCATTTTGATAATGCAACAATAAAGCATCTTCAGCC
AAAAAAAAAAAAAAAA

FIGURE 2

MSLVLLSLAALCRSAVPREPTVQCGSETGPSPEWMLQHDLIPGDLRDLRVEPVTTSVATGDYSILMNVSWVLRAD
ASIRLLKATKICVTGKSNFQSYSCVRCNYTEAFQTQTRPSGGKWTFSYIGFPVELNTVYFIGAHNIPNANMNEDG
PSMSVNFTSPGCLDHIMKYKKKCVKAGSLWDPNITACKKNEETVEVNFTTTPLGNRYMALIQHSTIIGFSQVFEP
HQKKQTRASVVIPVTGDSEGATVQLTPYFPTCGSDCIRHKGTVVLCPQTGVPFPLDNNKSKPGGWLPLLLLSLLV
ATWVLVAGIYLMWRHERIKKTSFSTTTLLPPIKVLVVYPSEICFHHTICYFTEFLQNHCRSEVILEKWQKKKIAE
MGPVQWLATQKKAADKVVFLLSNDVNSVCDGTCGKSEGSPSENSQDSSPCL

FIGURE 3

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GACAGTGGAGGGCAGTGGAGAGGACCGCGCTGTCCTGCTGTCACCAAGAGCTGGAGACACCATCTCCCACCGAGA
GTCATGGCCCCATTGGCCCTGCACCTCCTCGTCCTCGTCCCCATCCTCCTCAGCCTGGTGGCCTCCCAGGACTGG
AAGGCTGAACGCAGCCAAGACCCCTTCGAGAAATGCATGCAGGATCCTGACTATGAGCAGCTGCTCAAGGTGGTG
ACCTGGGGGCTCAATCGGACCCTGAAGCCCCAGAGGGTGATTGTGGTTGGCGCTGGTGTGGCCGGGCTGGTGGCC
GCCAAGGTGCTCAGCGATGCTGGACACAAGGTCACCATCCTGGAGGCAGATAACAGGATCGGGGGCCGCATCTTC
ACCTACCGGGACCAGAACACGGGCTGGATTGGGGAGCTGGGAGCCATGCGCATGCCCAGCTCTCACAGGATCCTC
CACAAGCTCTGCCAGGGCCTGGGGCTCAACCTGACCAAGTTCACCCAGTACGACAAGAACACGTGGACGGAGGTG
CACGAAGTGAAGCTGCGCAACTATGTGGTGGAGAAGGTGCCCGAGAAGCTGGGCTACGCCTTGCGTCCCCAGGAA
AAGGGCCACTCGCCCGAAGACATCTACCAGATGGCTCTCAACCAGGCCCTCAAAGACCTCAAGGCACTGGGCTGC
AGAAAGGCGATGAAGAAGTTTGAAAGGCACACGCTCTTGGAATATCTTCTCGGGGAGGGGAACCTGAGCCGGCCG
GCCGTGCAGCTTCTGGGAGACGTGATGTCCGAGGATGGCTTCTTCTATCTCAGCTTCGCCGAGGCCCTCCGGGCC
CACAGCTGCCTCAGCGACAGACTCCAGTACAGCCGCATCGTGGGTGGCTGGGACCTGCTGCCGCGCGCGCTGCTG
AGCTCGCTGTCCGGGCTTGTGCTGTTGAACGCGCCCGTGGTGGCGATGACCCAGGGACCGCACGATGTGCACGTG
CAGATCGAGACCTCTCCCCCGGCGCGGAATCTGAAGGTGCTGAAGGCCGACGTGGTGCTGCTGACGGCGAGCGGA
CCGGCGGTGAAGCGCATCACCTTCTCGCCGCCGCTGCCCCGCCACATGCAGGAGGCGCTGCGGAGGCTGCACTAC
GTGCCGGCCACCAAGGTGTTCCTAAGCTTCCGCAGGCCCTTCTGGCGCGAGGAGCACATTGAAGGCGGCCACTCA
AACACCGATCGCCCGTCGCGCATGATTTTCTACCCGCCGCCGCGCGAGGGCGCGCTGCTGCTGGCCTCGTACACG
TGGTCGGACGCGGCGGCAGCGTTCGCCGGCTTGAGCCGGGAAGAGGCGTTGCGCTTGGCGCTCGACGACGTGGCG
GCATTGCACGGGCCTGTCGTGCGCCAGCTCTGGGACGGCACCGGCGTCGTCAAGCGTTGGGCGGAGGACCAGCAC
AGCCAGGGTGGCTTTGTGGTACAGCCGCCGGCGCTCTGGCAAACCGAAAAGGATGACTGGACGGTCCCTTATGGC
CGCATCTACTTTGCCGGCGAGCACACCGCCTACCCGCACGGCTGGGTGGAGACGGCGGTCAAGTCGGCGCTGCGC
GCCGCCATCAAGATCAACAGCCGGAAGGGGCCTGCATCGGACACGGCCAGCCCCGAGGGGCACGCATCTGACATG
GAGGGGCAGGGGCATGTGCATGGGGTGGCCAGCAGCCCCTCGCATGACCTGGCAAAGGAAGAAGGCAGCCACCCT
CCAGTCCAAGGCCAGTTATCTCTCCAAAACACGACCCACACGAGGACCTCGCATTAAGTATTTTCGGAAAAA
```

FIGURE 4

MAPLALHLLVLVPILLSLVASQDWKAERSQDPFEKCMQDPDYEQLLKVVTWGLNRTLKPQRVIVVGAGVAGLVAA
KVLSDAGHKVTILEADNRIGGRIFTYRDQNTGWIGELGAMRMPSSHRILHKLCQGLGLNLTKFTQYDKNTWTEVH
EVKLRNYVVEKVPEKLGYALRPQEKGHSPEDIYQMALNQALKDLKALGCRKAMKKFERHTLLEYLLGEGNLSRPA
VQLLGDVMSEDGFFYLSFAEALRAHSCLSDRLQYSRIVGGWDLLPRALLSSLSGLVLLNAPVVAMTQGPHDVHVQ
IETSPPARNLKVLKADVVLLTASGPAVKRITFSPPLPRHMQEALRRLHYVPATKVFLSFRRPFWREEHIEGGHSN
TDRPSRMIFYPPPREGALLLASYTWSDAAAAFAGLSREEALRLALDDVAALHGPVVRQLWDGTGVVKRWAEDQHS
QGGFVVQPPALWQTEKDDWTVPYGRIYFAGEHTAYPHGWVETAVKSALRAAIKINSRKGPASDTASPEGHASDME
GQGHVHGVASSPSHDLAKEEGSHPPVQGQLSLQNTTHTRTSH

FIGURE 5

GGAGGCAGGCGGTGCCGCGGCGCCGGGACCCGACTCATCCGGTGCTTGCGTGTGGTGGTGAGCGCAGCGCCGAGG
ATGAGGAGGTGCAACAGCGGCTCCGGGCCGCCGCCGTCGCTGCTGCTGCTGCTGCTGTGGCTGCTCGCGGTTCCC
GGCGCTAACGCGGCCCCGCGGTCGGCGCTCTATTCGCCTTCCGACCCGCTGACGCTGCTGCAGGCGGACACGGTG
CGCGGCGCGGTGCTGGGCTCCCGCAGCGCCTGGGCCGTGGAGTTCTTCGCCTCCTGGTGCGGCCACTGCATCGCC
TTCGCCCCGACGTGGAAGGCGCTGGCCGAAGACGTCAAAGCCTGGAGGCCGGCCCTGTATCTCGCCGCCCTGGAC
TGTGCTGAGGAGACCAACAGTGCAGTCTGCAGAGACTTCAACATCCCTGGCTTCCCGACTGTGAGGTTCTTCAAG
GCCTTTACCAAGAACGGCTCGGGAGCAGTATTTCCAGTGGCTGGTGCTGACGTGCAGACGCTGCGGGAGAGGCTC
ATTGACGCCCTGGAGTCCCATCATGACACGTGGCCCCCAGCCTGTCCCCCACTGGAGCCTGCCAAGCTGGAGGAG
ATTGATGGATTCTTTGCGAGAAATAACGAAGAGTACCTGGCTCTGATCTTTGAAAAGGGGAGGCTCCTACCTGGGT
AGAGAGGTGGCTCTGGACCTGTCCCAGCACAAAGGCGTGGCGGTGCGCAGGGTGCTGAACACAGAGGCCAATGTG
GTGAGAAAGTTTGGTGTCACCGACTTCCCCTCTTGCTACCTGCTGTTCCGGAATGGCTCTGTCTCCCGAGTCCCC
GTGCTCATGGAATCCAGGTCCTTCTATACCGCTTACCTGCAGAGACTCTCTGGGCTCACCAGGGAGGCTGCCCAG
ACCACAGTTGCACCAACCACTGCTAACAAGATAGCTCCCACTGTTTGGAAATTGGCAGATCGCTCCAAGATCTAC
ATGGCTGACCTGGAATCTGCACTGCACTACATCCTGCGGATAGAAGTGGGCAGGTTCCCGGTCCTGGAAGGGCAG
CGCCTGGTGGCCCTGAAAAAGTTTGTGGCAGTGCTGGCCAAGTATTTCCCTGGCCGGCCCTTAGTCCAGAACTTC
CTGCACTCCGTGAATGAATGGCTCAAGAGGCAGAAGAGAAATAAAATTCCCTACAGTTTCTTTAAAACTGCCCTG
GACGACAGGAAAGAGGGTGCCGTTCTTGCCAAGAAGGTGAACTGGATTGGCTGCCAGGGGAGTGAGCCGCATTTC
CGGGGCTTTCCCTGCTCCCTGTGGGTCCTCTTCCACTTCTTGACTGTGCAGGCAGCTCGGCAAAATGTAGACCAC
TCACAGGAAGCAGCCAAGGCCAAGGAGGTCCTCCCAGCCATCCGAGGCTACGTGCACTACTTCTTCGGCTGCCGA
GACTGCGCTAGCCACTTCGAGCAGATGGCTGCTGCCTCCATGCACCGGGTGGGGAGTCCCAACGCCGCTGTCCTC
TGGCTCTGGTCTAGCCACAACAGGGTCAATGCTCGCCTTGCAGGTGCCCCCAGCGAGGACCCCCAGTTCCCCAAG
GTGCAGTGGCCACCCCGTGAACTTTGTTCTGCCTGCCACAATGAACGCCTGGATGTGCCCGTGTGGGACGTGGAA
GCCACCCTCAACTTCCTCAAGGCCCACTTCTCCCCAAGCAACATCATCCTGGACTTCCCTGCAGCTGGGTCAGCT
GCCCGGAGGGATGTGCAGAATGTGGCAGCCGCCCCAGAGCTGGCGATGGGAGCCCTGGAGCTGGAAAGCCGGAAT
TCAACTCTGGACCCTGGGAAGCCTGAGATGATGAAGTCCCCCACAAACACCACCCCACATGTGCCGGCTGAGGGA
CCTGAGGCAAGTCGACCCCCGAAGCTGCACCCTGGCCTCAGAGCTGCACCAGGCCAGGAGCCTCCTGAGCACATG
GCAGAGCTTCAGAGGAATGAGCAGGAGCAGCCGCTTGGGCAGTGGCACTTGAGCAAGCGAGACACAGGGGCTGCA
TTGCTGGCTGAGTCCAGGGCTGAGAAGAACCGCCTCTGGGGCCCTTTGGAGGTCAGGCGCGTGGGCCGCAGCTCC
AAGCAGCTGGTCGACATCCCTGAGGGCCAGCTGGAGGCCCGAGCTGGACGGGGCCGAGGCCAGTGGCTGCAGGTG
CTGGGAGGGGGCTTCTCTTACCTGGACATCAGCCTCTGTGTGGGGCTCTATTCCCTGTCCTTCATGGGCCTGCTG
GCCATGTACACCTACTTCCAGGCCAAGATAAGGGCCCTGAAGGGCCATGCTGGCCACCCTGCAGCC**TGA**ACCACC
TGGGGAGGAGGCGGGAGAGGGAGCTGCCATCTCTAGGCACCTCAAGCCCCCTGACCCCATTCCCTCCCCTCCCAC
CCCTTGCTCCTTGTCTGGCCTAGAAGTGTGGGAAATTCAGGAAAACGAGTTGCTCCAGTGAAGCTTCTTGGGGTT
GCTAGGACAGAGAGCTCCTTTGACACAAAAGACAGGAGCAGGGTCCAGGTTCCCCTGCTGTGCAGGGAGGGCAGC
CCCGGGCAGTGGGCATAGGGCAGCTCAGTCCCTGGCCTCTTAGCACCACATTCCTGTTTTTCAGCTTATTTGAAG
TCCTGCCTCATTCTCACTGGAGCCTCAGTCTCTCCTGCTTGGTCTTGGCCCTCAACTGGGGCAAGTGAAGCCAGA
GGAGGGTCCCCCAGCTGGGTGGGCTGGAATGGAACTCCTCACTAGCTGCTGGGGCTCCGCCCACCCTGCTCCCTT
CCGGACAATGAAGAAGCCTTTGCACCCTGGGAGGAAGGACCACCCCGGGCCCTCTATGCCTGGCCAGCCTCCAGC
TCCTCAGACCTCCTGGGTGGGGTTTGGCTTCAGGGTGGGGTTTGGAAGCTTCTGGAAGTCGTGCTGGTCTCCCAG
GTGAGGCAAGCCATGGTTGCTGGGCTGTAGGGTGAGTGGCTTGCTTGGTGGGACCTGACGAGTTGGTGGCATGGG
AAGGATGTGGGTCTCTAGTGCCTTGCCCTGGCTTAGCTGCAGGAGAAGATGGCTGCTTTCACTTCCCCCCATTGA
GCTCTGCTCCCTCTGAGCCTGGTCTTTTGTCCTTTTTTATTTTGGTCTCCAAGATGAATGCTCATCTTTGGAGGG
TGCCAGGTAGAAGCTAGGGAGGGGAGTGTCTTCTCTCTCCAGGTTTCACCTTCCAGTGTGCAGAAGTTAGAAGGG
TCTGGCGGGGGCAGTGCCTTACACATGCTTGATTCCCACGCTACCCCCTGCCTTGGGAGGTGTGTGGAATAAATT
ATTTTTGTTAAGGC

FIGURE 6

MRRCNSGSGPPPSLLLLLLWLLAVPGANAAPRSALYSPSDPLTLLQADTVRGAVLGSRSAWAVEFFASWCGHCIA
FAPTWKALAEDVKAWRPALYLAALDCAEETNSAVCRDFNIPGFPTVRFFKAFTKNGSGAVFPVAGADVQTLRERL
IDALESHHDTWPPACPPLEPAKLEEIDGFFARNNEEYLALIFEKGGSYLGREVALDLSQHKGVAVRRVLNTEANV
VRKFGVTDFPSCYLLFRNGSVSRVPVLMESRSFYTAYLQRLSGLTREAAQTTVAPTTANKIAPTVWKLADRSKIY
MADLESALHYILRIEVGRFPVLEGQRLVALKKFVAVLAKYFPGRPLVQNFLHSVNEWLKRQKRNKIPYSFFKTAL
DDRKEGAVLAKKVNWIGCQGSEPHFRGFPCSLWVLFHFLTVQAARQNVDHSQEAAKAKEVLPAIRGYVHYFFGCR
DCASHFEQMAAASMHRVGSPNAAVLWLWSSHNRVNARLAGAPSEDPQFPKVQWPPRELCSACHNERLDVPVWDVE
ATLNFLKAHFSPSNIILDFPAAGSAARRDVQNVAAAPELAMGALELESRNSTLDPGKPEMMKSPTNTTPHVPAEG
PEASRPPKLHPGLRAAPGQEPPEHMAELQRNEQEQPLGQWHLSKRDTGAALLAESRAEKNRLWGPLEVRRVGRSS
KQLVDIPEGQLEARAGRGRGQWLQVLGGGFSYLDISLCVGLYSLSFMGLLAMYTYFQAKIRALKGHAGHPAA

FIGURE 7A

GGCGAGCTAAGCCGGAGGATGTGCAGCTGCGGCGGCGGCGCCGGCTACGAAGAGGACGGGGACAGGCGCCGTGCG
AACCGAGCCCAGCCAGCCGGAGGACGCGGGCAGGGCGGGACGGGAGCCCGGACTCGTCTGCCGCCGCCGTCGTCG
CCGTCGTGCCGGCCCCGCGTCCCCGCGCGCGAGCGGGAGGAGCCGCCGCCACCTCGCGCCCGAGCCGCCGCTAGC
GCGCGCCGGGCATGGTCCCCTCTTAAAGGCGCAGGCCGCGGCGGCGGGGGCGGGCGTGCGGAACAAAGCGCCGGC
GCGGGGCCTGCGGGCGGCTCGGGGGCCGCGATGGGCGCGGCGGGCCCGCGGCGGCGGCGGCGCTGCCCGGGCCGG
GCCTCGCGGCGCTAGGGCGGGCTGGCCTCCGCGGGCGGGGGCAGCGGGCTGAGGGCGCGCGGGGCCTGCGGCGGC
GGCGGCGGCGGCGGCGGCCCGGCGGGCGGAGCGGCGCGGGC**ATG**GCCGCGCGCGGCCGGCGCGCCTGGCTCA
GCGTGCTGCTCGGGCTCGTCCTGGGCTTCGTGCTGGCCTCGCGGCTCGTCCTGCCCCGGGCTTCCGAGCTGAAGC
GAGCGGGCCCACGGCGCCGCGCCAGCCCCGAGGGCTGCCGGTCCGGGCAGGCGGCGGCTTCCCAGGCCGGCGGGG
CGCGCGGCGATGCGCGCGGGGCGCAGCTCTGGCCGCCCGGCTCGGACCCAGATGGCGGCCCGCGCGACAGGAACT
TTCTCTTCGTGGGAGTCATGACCGCCCAGAAATACCTGCAGACTCGGGCCGTGGCCGCCTACAGAACATGGTCCA
AGACAATTCCTGGGAAAGTTCAGTTCTTCTCAAGTGAGGGTTCTGACACATCTGTACCAATTCCAGTAGTGCCAC
TACGGGGTGTGGACGACTCCTACCCGCCCCAGAAGAAGTCCTTCATGATGCTCAAGTACATGCACGACCACTACT
GGACAAGTATGAATGGTTTATGAGAGCAGATGATGACGTGTACATCAAAGGAGACCGTCTGGAGAACTTCCTGA
GGAGTTTGAACAGCAGCGAGCCCCTCTTTCTTGGGCAGACAGGCCTGGGCACCACGGAAGAAATGGGAAAACTGG
CCCTGGAGCCTGGTGAGAACTTCTGCATGGGGGGGCCTGGCGTGATCATGAGCCGGGAGGTGCTTCGGAGAATGG
TGCCGCACATTGGCAAGTGTCTCCGGGAGATGTACACCACCCATGAGGACGTGGAGGTGGGAAGGTGTGTCCGGA
GGTTTGCAGGGGTGCAGTGTGTCTGGTCTTATGAGATGCAGCAGCTTTTTTATGAGAATTACGAGCAGAACAAAA
AGGGGTACATTAGAGATCTCCATAACAGTAAAATTCACCAAGCTATCACATTACACCCCAACAAAAACCCACCCT
ACCAGTACAGGCTCCACAGCTACATGCTGAGCCGCAAGATATCCGAGCTCCGCCATCGCACAATACAGCTGCACC
GCGAAATTGTCCTGATGAGCAAATACAGCAACACAGAAATTCATAAAGAGGACCTCCAGCTGGGAATCCCTCCCT
CCTTCATGAGGTTTCAGCCCCGCCAGCGAGAGGAGATTCTGGAATGGGAGTTTCTGACTGGAAAATACTTGTATT
CGGCAGTTGACGGCCAGCCCCCTCGAAGAGGAATGGACTCCGCCCAGAGGGAAGCCTTGGACGACATTGTCATGC
AGGTCATGGAGATGATCAATGCCAACGCCAAGACCAGAGGGCGCATCATTGACTTCAAAGAGATCCAGTACGGCT
ACCGCCGGGTGAACCCCATGTATGGGGCTGAGTACATCCTGGACCTGCTGCTTCTGTACAAAAAGCACAAAGGGA
AGAAAATGACGGTCCCTGTGAGGAGGCACGCGTATTTACAGCAGACTTTCAGCAAAATCCAGTTTGTGGAGCATG
AGGAGCTGGATGCACAAGAGTTGGCCAAGAGAATCAATCAGGAATCTGGATCCTTGTCCTTTCTCTCAAACTCCC
TGAAGAAGCTCGTCCCCTTTCAGCTCCCTGGGTCGAAGAGTGAGCACAAAGAACCCAAAGATAAAAGATAAACA
TACTGATTCCTTTGTCTGGGCGTTTCGACATGTTTGTGAGATTTATGGGAAACTTTGAGAAGACGTGTCTTATCC
CCAATCAGAACGTCAAGCTCGTGGTTCTGCTTTTCAATTCTGACTCCAACCCTGACAAGGCCAAACAAGTTGAAC
TGATGACAGATTACCGCATTAAGTACCCTAAAGCCGACATGCAGATTTTGCCTGTGTCTGGAGAGTTTTCAAGAG
CCCTGGCCCTGGAAGTAGGATCCTCCCAGTTTAACAATGAATCTTTGCTCTTCTTCTGCGACGTCGACCTCGTCT
TTACTACAGAATTCCTTCAGCGATGTCGAGCAAATACAGTTCTGGGCCAACAAATATATTTCCAATCATCTTCA
GCCAGTATGACCCAAAGATTGTTTATAGTGGGAAAGTTCCCAGTGACAACCATTTTGCCTTTACTCAGAAAACTG
GCTTCTGGAGAAACTATGGGTTTGGCATCACGTGTATTTATAAGGGAGATCTTGTCCGAGTGGGTGGCTTTGATG
TTTCCATCCAAGGCTGGGGGCTGGAGGATGTGGACCTTTTCAACAAGGTTGTCCAGGCAGGTTTGAAGACGTTTA
GGAGCCAGGAAGTAGGAGTAGTCCACGTCCACCATCCTGTCTTTTGTGATCCCAATCTTGACCCCAAACAGTACA
AAATGTGCTTGGGGTCCAAAGCATCGACCTATGGGTCCACACAGCAGCTGGCTGAGATGTGGCTGGAAAAAAATG
ATCCAAGTTACAGTAAAAGCAGCAATAATAATGGCTCAGTGAGGACAGCC**TAA**TGTCCAGCTTTGCTGGAAAAGA
CGTTTTTAATTATCTAATTTATTTTTCAAAAATTTTTTGTATGATCAGTTTTTGAAGTCCGTATACAAGGATATA
TTTTACAAGTGGTTTTCTTACATAGGACTCCTTTAAGATTGAGCTTTCTGAACAAGAAGGTGATCAGTGTTTGCC
TTTGAACACATCTTCTTGCTGAACATTATGTAGCAGACCTGCTTAACTTTGACTTGAAATGTACCTGATGAACAA
AACTTTTTAAAAAAATGTTTTCTTTTGAGACCCTTTGCTCCAGTCCTATGGCAGAAAACGTGAACATTCCTGCA
AAGTATTATTGTAACAAAACACTGTAACTCTGGTAAATGTTCTGTTGTGATTGTTAACATTCCACAGATTCTACC
TTTTGTGTTTTGTTTTTTTTTTTACAATTGTTTTAAAGCCATTTCATGTTCCAGTTGTAAGATAAGGAAATGT
GATAATAGCTGTTTCATCATTGTCTTCAGGAGAGCTTTCCAGAGTTGATCATTTCCCCTCATGGTACTCTGCTCA
GCATGGCCACGTAGGTTTTTGTTTGTTTTGTTTTGTTCTTTTTTTGAGACGGAGTCTCACTCTGTTACCCAGGC
TGGAATGCAGTGGCGCAATCTTGGCTCACTTTAACCTCCACTTCCCTGGTTCAAGCAATTCCCCTGCCTTTGCCT

FIGURE 7B

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CCCGAGTAGCTGGGATTACAGGCACACACCACCACGCCCAGCTAGTTTTTTTGTATTTTTAGTAGAGACGGGGTT
TCACCATGCAAGCCCAGCTGGCCACGTAGGTTTTAAAGCAAGGGGCGTGAAGAAGGCACAGTGAGGTATGTGGCT
GTTCTCGTGGTAGTTCATTCGGCCTAAATAGACCTGGCATTAAATTTCAAGAAGGATTTGGCATTTTCTCTTCTT
GACCCTTCTCTTTAAAGGGTAAAATATTAATGTTTAGAATGACAAAGATGAATTATTACAATAAATCTGATGTAC
ACAGACTGAAACACACACACATACACCCTAATCAAAACGTTGGGGAAAAATGTATTTGGTTTTGTTCCTTTCATC
CTGTCTGTGTTATGTGGGTGGAGATGGTTTTCATTCTTTCATTACTGTTTTGTTTTATCCTTTGTATCTGAAATA
CCTTTAATTTATTTAATATCTGTTGTTCAGAGCTCTGCCATTTCTTGAGTACCTGTTAGTTAGTATTATTTATGT
GTATCGGGAGTGTGTTAGTCTGTTTTATTTGCAGTAAACCGATCTCCAAAGATTTCCTTTTGGAAACGCTTTTT
CCCCTCCTTAATTTTTATATTCCTTACTGTTTTACTAAATATTAAGTGTTCTTTGACAATTTTGGTGCTCATGTG
TTTTGGGGACAAAAGTGAAATGAATCTGTCATTATACCAGAAAGTTAAATTCTCAGATCAAATGTGCCTTAATAA
ATTTGTTTTCATTTAGATTTCAAACAGTGATAGACTTGCCATTTTAATACACGTCATTGGAGGGCTGCGTATTTG
TAAATAGCCTGATGCTCATTGGAAAAATAAACCAGTGAACAATATTTTTCTATTGTACTTTTCAGAACCATTTT
GTCTCATTATTCCTGTTTTAGCTGAAGAATTGTATTACATTTGGAGAGTAAAAAACTTAAACACG
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FIGURE 8

MAARGRRAWLSVLLGLVLGFVLASRLVLPRASELKRAGPRRRASPEGCRSGQAAASQAGGARGDARGAQLWPPGS
DPDGGPRDRNFLFVGVMTAQKYLQTRAVAAYRTWSKTIPGKVQFFSSEGSDTSVPIPVVPLRGVDDSYPPQKKSF
MMLKYMHDHYLDKYEWFMRADDDVYIKGDRLENFLRSLNSSEPLFLGQTGLGTTEEMGKLALEPGENFCMGGPGV
IMSREVLRRMVPHIGKCLREMYTTHEDVEVGRCVRRFAGVQCVWSYEMQQLFYENYEQNKKGYIRDLHNSKIHQA
ITLHPNKNPPYQYRLHSYMLSRKISELRHRTIQLHREIVLMSKYSNTEIHKEDLQLGIPPSFMRFQPRQREEILE
WEFLTGKYLYSAVDGQPPRRGMDSAQREALDDIVMQVMEMINANAKTRGRIIDFKEIQYGYRRVNPMYGAEYILD
LLLLYKKHKGKKMTVPVRRHAYLQQTFSKIQFVEHEELDAQELAKRINQESGSLSFLSNSLKKLVPFQLPGSKSE
HKEPKDKKINILIPLSGRFDMFVRFMGNFEKTCLIPNQNVKLVVLLFNSDSNPDKAKQVELMTDYRIKYPKADMQ
ILPVSGEFSRALALEVGSSQFNNESLLFFCDVDLVFTTEFLQRCRANTVLGQQIYFPIIFSQYDPKIVYSGKVPS
DNHFAFTQKTGFWRNYGFGITCIYKGDLVRVGGFDVSIQGWGLEDVDLFNKVVQAGLKTFRSQEVGVVHVHHPVF
CDPNLDPKQYKMCLGSKASTYGSTQQLAEMWLEKNDPSYSKSSNNNGSVRTA

FIGURE 9

TCCTGTCTCAGGCAGGCCCTGCGCCTCCTATGCGGAG**ATG**CTACTGCCACTGCTGCTGTCCTCGCTGCTGGGCGG
GTCCCAGGCTATGGATGGGAGATTCTGGATACGAGTGCAGGAGTCAGTGATGGTGCCGGAGGGCCTGTGCATCTC
TGTGCCCTGCTCTTTCTCCTACCCCCGACAAGACTGGACAGGGTCTACCCCAGCTTATGGCTACTGGTTCAAAGC
AGTGACTGAGACAACCAAGGGTGCTCCTGTGGCCACAAACCACCAGAGTCGAGAGGTGGAAATGAGCACCCGGGG
CCGATTCCAGCTCACTGGGGATCCCGCCAAGGGGAACTGCTCCTTGGTGATCAGAGACGCGCAGATGCAGGATGA
GTCACAGTACTTCTTTCGGGTGGAGAGAGGAAGCTATGTGAGATATAATTTCATGAACGATGGGTTCTTTCTAAA
AGTAACAGCCCTGACTCAGAAGCCTGATGTCTACATCCCCGAGACCCTGGAGCCCGGGCAGCCGGTGACGGTCAT
CTGTGTGTTTAACTGGGCCTTTGAGGAATGTCCACCCCCTTCTTTCTCCTGGACGGGGGCTGCCCTCTCCTCCCA
AGGAACCAAACCAACGACCTCCCACTTCTCAGTGCTCAGCTTCACGCCCAGACCCCAGGACCACAACACCGACCT
CACCTGCCATGTGGACTTCTCCAGAAAGGGTGTGAGCGTACAGAGGACCGTCCGACTCCGTGTGGCCTATGCCCC
CAGAGACCTTGTTATCAGCATTTCACGTGACAACACGCCAGCCCTGGAGCCCCAGCCCCAGGGAAATGTCCCATA
CCTGGAAGCCCAAAAAGGCCAGTTCCTGCGGCTCCTCTGTGCTGCTGACAGCCAGCCCCCTGCCACACTGAGCTG
GGTCCTGCAGAACAGAGTCCTCTCCTCGTCCCATCCCTGGGGCCCTAGACCCCTGGGGCTGGAGCTGCCCGGGGT
GAAGGCTGGGGATTCAGGGCGCTACACCTGCCGAGCGGAGAACAGGCTTGGCTCCCAGCAGCGAGCCCTGGACCT
CTCTGTGCAGTATCCTCCAGAGAACCTGAGAGTGATGGTTTCCCAAGCAAACAGGACAGTCCTGGAAAACCTTGG
GAACGGCACGTCTCTCCCAGTACTGGAGGGCCAAAGCCTGTGCCTGGTCTGTGTCACACACAGCAGCCCCCCAGC
CAGGCTGAGCTGGACCCAGAGGGGACAGGTTCTGAGCCCCTCCCAGCCCTCAGACCCCGGGGTCCTGGAGCTGCC
TCGGGTTCAAGTGGAGCACGAAGGAGAGTTCACCTGCCACGCTCGGCACCCACTGGGCTCCCAGCACGTCTCTCT
CAGCCTCTCCGTGCACTACTCCCCGAAGCTGCTGGGCCCCTCCTGCTCCTGGGAGGCTGAGGGTCTGCACTGCAG
CTGCTCCTCCCAGGCCAGCCCGGCCCCCTCTCTGCGCTGGTGGCTTGGGGAGGAGCTGCTGGAGGGGAACAGCAG
CCAGGACTCCTTCGAGGTCACCCCCAGCTCAGCCGGGCCCTGGGCCAACAGCTCCCTGAGCCTCCATGGAGGGCT
CAGCTCTGGCCTCAGGCTCCGCTGTGAGGCCTGGAACGTCCATGGGCCCAGAGTGGATCCATCCTGCAGCTGCC
AGATAAGAAGGGACTCATCTCAACGGCATTCTCCAACGGAGCGTTTCTGGGAATCGGCATCACGGCTCTTCTTTT
CCTCTGCCTGGCCCTGATCATCATGAAGATTCTACCGAAGAGACGGACTCAGACAGAAACCCCGAGGCCCAGGTT
CTCCCGGCACAGCACGATCCTGGATTACATCAATGTGGTCCCGACGGCTGGCCCCCTGGCTCAGAAGCGGAATCA
GAAAGCCACACCAAACAGTCCTCGGACCCCTCTTCCACCAGGTGCTCCCTCCCCAGAATCAAAGAAGAACCAGAA
AAAGCAGTATCAGTTGCCCAGTTTCCCAGAACCCAAATCATCCACTCAAGCCCCAGAATCCCAGGAGAGCCAAGA
GGAGCTCCATTATGCCACGCTCAACTTCCCAGGCGTCAGACCCAGGCCTGAGGCCCGGATGCCCAAGGGCACCCA
GGCGGATTATGCAGAAGTCAAGTTCCAA**TGA**GGGTCTCTTAGGCTTTAGGACTGGGACTTCGGCTAGGGAGGAAG
G

FIGURE 10

MLLPLLLSSLLGGSQAMDGRFWIRVQESVMVPEGLCISVPCSFSYPRQDWTGSTPAYGYWFKAVTETTKGAPVAT
NHQSREVEMSTRGRFQLTGDPAKGNCSLVIRDAQMQDESQYFFRVERGSYVRYNFMNDGFFLKVTALTQKPDVYI
PETLEPGQPVTVICVFNWAFEECPPPSFSWTGAALSSQGTKPTTSHFSVLSFTPRPQDHNTDLTCHVDFSRKGVS
VQRTVRLRVAYAPRDLVISISRDNTPALEPQPQGNVPYLEAQKGQFLRLLCAADSQPPATLSWVLQNRVLSSSHP
WGPRPLGLELPGVKAGDSGRYTCRAENRLGSQQRALDLSVQYPPENLRVMVSQANRTVLENLGNGTSLPVLEGQS
LCLVCVTHSSPPARLSWTQRGQVLSPSQPSDPGVLELPRVQVEHEGEFTCHARHPLGSQHVSLSLSVHYSPKLLG
PSCSWEAEGLHCSCSSQASPAPSLRWWLGEELLEGNSSQDSFEVTPSSAGPWANSSLSLHGGLSSGLRLRCEAWN
VHGAQSGSILQLPDKKGLISTAFSNGAFLGIGITALLFLCLALIIMKILPKRRTQTETPRPRFSRHSTILDYINV
VPTAGPLAQKRNQKATPNSPRTPLPPGAPSPESKKNQKKQYQLPSFPEPKSSTQAPESQESQEELHYATLNFPGV
RPRPEARMPKGTQADYAEVKFQ

FIGURE 11

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CCTTCATACCGGCCCTTCCCCTCGGCTTTGCCTGGACAGCTCCTGCCTCCCGCAGGGCCCACCTGTGTCCCCCAG
CGCCGCTCCACCCAGCAGGCCTGAGCCCCTCTCTGCTGCCAGACACCCCCTGCTGCCCACTCTCCTGCTGCTCGG
GTTCTGAGGCACAGCTTGTCACACCGAGGCGGATTCTCTTTCTCTTTCTCTTCTGGCCCACAGCCGCAGCAATGG
CGCTGAGTTCCTCTGCTGGAGTTCATCCTGCTAGCTGGGTTCCCGAGCTGCCGGTCTGAGCCTGAGGCATGGAGC
CTCCTGGAGACTGGGGGCCTCCTCCCTGGAGATCCACCCCCAGAACCGACGTCTTGAGGCTGGTGCTGTATCTCA
CCTTCCTGGGAGCCCCCTGCTACGCCCCAGCTCTGCCGTCCTGCAAGGAGGACGAGTACCCAGTGGGCTCCGAGT
GCTGCCCCAAGTGCAGTCCAGGTTATCGTGTGAAGGAGGCCTGCGGGGAGCTGACGGGCACAGTGTGTGAACCCT
GCCCTCCAGGCACCTACATTGCCCACCTCAATGGCCTAAGCAAGTGTCTGCAGTGCCAAATGTGTGACCCAGCCA
TGGGCCTGCGCGCGAGCCGGAACTGCTCCAGGACAGAGAACGCCGTGTGTGGCTGCAGCCCAGGCCACTTCTGCA
TCGTCCAGGACGGGGACCACTGCGCCGCGTGCCGCGCTTACGCCACCTCCAGCCCGGGCCAGAGGGTGCAGAAGG
GAGGCACCGAGAGTCAGGACACCCTGTGTCAGAACTGCCCCCCCGGGGACCTTCTCTCCCAATGGGACCCTGGAGG
AATGTCAGCACCAGACCAAGTGCAGCTGGCTGGTGACGAAGGCCGGAGCTGGGACCAGCAGCTCCCACTGGGTAT
GGTGGTTTCTCTCAGGGAGCCTCGTCATCGTCATTGTTTGCTCCACAGTTGGCCTAATCATATGTGTGAAAAGAA
GAAAGCCAAGGGGTGATGTAGTCAAGGTGATCGTCTCCGTCCAGCGGAAAAGACAGGAGGCAGAAGGTGAGGCCA
CAGTCATTGAGGCCCTGCAGGCCCCTCCGGACGTCACCACGGTGGCCGTGGAGGAGACAATACCCTCATTCACGG
GGAGGAGCCCAAACCACTGACCCACAGACTCTGCACCCCGACGCCAGAGATACCTGGAGCGACGGCTGCTGAAAG
AGGCTGTCCACCTGGCGAAACCACCGGAGCCCGGAGGCTTGGGGGCTCCGCCCTGGGCTGGCTTCCGTCTCCTCC
AGTGGAGGGAGAGGTGGGGCCCCTGCTGGGGTAGAGCTGGGGACGCCACGTGCCATTCCCATGGGCCAGTGAGGG
CCTGGGGCCTCTGTTCTGCTGTGGCCTGAGCTCCCAGAGTCCTGAGGAGGAGCGCCAGTTGCCCCTCGCTCACA
GACCACACACCCAGCCCTCCTGGGCCAGCCCAGAGGGCCCTTCAGACCCCAGCTGTCTGCGCGTCTGACTCTTGT
GGCCTCAGCAGGACAGGCCCCGGGCACTGCCTCACAGCCAAGGCTGGACTGGGTTGGCTGCAGTGTGGTGTTTAG
TGGATACCACATCGGAAGTGATTTTCTAAATTGGATTTGAATTCCGGTCCTGTCTTCTATTTGTCATGAAACAGT
GTATTTGGGGAGATGCTGTGGGAGGATGTAAATATCTTGTTTCTCCTCAAAAAAAAAAAAAAAAAAAAAAAAAAAA
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FIGURE 12

MEPPGDWGPPPWRSTPRTDVLRLVLYLTFLGAPCYAPALPSCKEDEYPVGSECCPKCSPGYRVKEACGELTGTVC
EPCPPGTYIAHLNGLSKCLQCQMCDPAMGLRASRNCSRTENAVCGCSPGHFCIVQDGDHCAACRAYATSSPGQRV
QKGGTESQDTLCQNCPPGTFSPNGTLEECQHQTKCSWLVTKAGAGTSSSHWVWWFLSGSLVIVIVCSTVGLIICV
KRRKPRGDVVKVIVSVQRKRQEAEGEATVIEALQAPPDVTTVAVEETIPSFTGRSPNH

FIGURE 13

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TGCAGTCTGTCTGAGGGCGGCCGAAGTGGCTGGCTCATTTAAGATGAGGCTTCTGCTGCTTCTCCTAGTGGCGGC
GTCTGCGATGGTCCGGAGCGAGGCCTCGGCCAATCTGGGCGGCGTGCCAGCAAGAGATTAAAGATGCAGTACGCC
ACGGGGCCGCTGCTCAAGTTCCAGATTTGTGTTTCCTGAGGTTATAGGCGGGTGTTTGAGGAGTACATGCGGGTT
ATTAGCCAGCGGTACCCAGACATCCGCATTGAAGGAGAGAATTACCTCCCTCAACCAATATATAGACACATAGCA
TCTTTCCTGTCAGTCTTCAAACTAGTATTAATAGGCTTAATAATTGTTGGCAAGGATCCTTTTGCTTTCTTTGGC
ATGCAAGCTCCTAGCATCTGGCAGTGGGGCCAAGAAAATAAGGTTTATGCATGTATGATGGTTTTCTTCTTGAGC
AACATGATTGAGAACCAGTGTATGTCAACAGGTGCATTTGAGATAACTTTAAATGATGTACCTGTGTGGTCTAAG
CTGGAATCTGGTCACCTTCCATCCATGCAACAACTTGTTCAAATTCTTGACAATGAAATGAAGCTCAATGTGCAT
ATGGATTCAATCCCACACCATCGATCATAGCACCACCTATCAGCACTGAAAACTCTTTTGCATTAAGGGATCATT
GCAAGAGCAGCGTGACTGACATTATGAAGGCCTGTACTGAAGACAGCAAGCTGTTAGTACAGACCAGATGCTTTC
TTGGCAGGCTCGTTGTACCTCTTGGAAAACCTCAATGCAAGATAGTGTTTCAGTGCTGGCATATTTTGGAATTCT
GCACATTCATGGAGTGCAATAATACTGTATAGCTTTCCCCCACCTCCCACAAAATCACCCAGTTAATGTGTGTGT
GTGTGTTTTTTTAAGGTAAACATTACTACTTGTAACTTTTTTTCTTTAGTCATATTTGGAAAAAGTAGAAAATT
GGAGTTACATTTGGATTTTTTTTCCAA
```

FIGURE 14

MQYATGPLLKFQICVSXGYRRVFEEYMRVISQRYPDIRIEGENYLPQPIYRHIASFLSVFKLVLIGLIIVGKDPF
AFFGMQAPSIWQWGQENKVYACMMVFFLSNMIENQCMSTGAFEITLNDVPVWSKLESGHLPSMQQLVQILDNEMK
LNVHMDSIPHHRS

FIGURE 15

GTGGCTTGGTATTCACTGGCAGGTTTCAGACATTTAGATCTTTCTTTTAATGACTAACACCATGCCTATCTGTGG'
AGAAGCTGGCAACATGTCACACCTGGAAATTGTTTTTCAACATTAATACTATTATTTGGCAGTAATCCAGATTGC
TTTTGCCACCAACCTGAAGACATATAGAGGCAGAAGGACAGGAATAATTCTATTTGTTTCCTGTTTTGAAACTTC
CATCTGTAAGGCTATCAAAAGGAGATGTGAGAGAGGGTATTGAGTCTGGCCTGACAATGCAGTTCTTAAACCAAA
GGTCCATTATGCTTCTCCTCTCTGAGAATCCTGACTTACCTCAACAACGGAGACATGGCACAGTAGCCAGCTTGG
AGACTTCTCAGCCAATGCTCTGAGATCAAGTCGAAGACCCAATATACAGGGTTTTGAGCTCATCTTCATCATTCA
TATGAGGAAATAAGTGGTAAAATCCTTGGAAATACA**ATG**AGACTCATCAGAAACATTTACATATTTTGTAGTATT
GTTATGACAGCAGAGGGTGATGCTCCAGAGCTGCCAGAAGAAAGGGAACTGATGACCAACTGCTCCAACATGTCT
CTAAGAAAGGTTCCCGCAGACTTGACCCCAGCCACAACGACACTGGATTTATCCTATAACCTCCTTTTTCAACTC
CAGAGTTCAGATTTTCATTCTGTCTCCAAACTGAGAGTTTTGATTCTATGCCATAACAGAATTCAACAGCTGGAT
CTCAAAACCTTTGAATTCAACAAGGAGTTAAGATATTTAGATTTGTCTAATAACAGACTGAAGAGTGTAACTTGG
TATTTACTGGCAGGTCTCAGGTATTTAGATCTTTCTTTTAATGACTTTGACACCATGCCTATCTGTGAGGAAGCT
GGCAACATGTCACACCTGGAAATCCTAGGTTTGAGTGGGGCAAAAATACAAAAATCAGATTTCCAGAAAATTGCT
CATCTGCATCTAAATACTGTCTTCTTAGGATTCAGAACTCTTCCTCATTATGAAGAAGGTAGCCTGCCCATCTTA
AACACAACAAAACTGCACATTGTTTTACCAATGGACACAAATTTCTGGGTTCTTTTGCGTGATGGAATCAAGACT
TCAAAAATATTAGAAATGACAAATATAGATGGCAAAAGCCAATTTGTAAGTTATGAAATGCAACGAAATCTTAGT
TTAGAAAATGCTAAGACATCGGTTCTATTGCTTAATAAAGTTGATTTACTCTGGGACGACCTTTTCCTTATCTTA
CAATTTGTTTGGCATACATCAGTGGAACACTTTCAGATCCGAAATGTGACTTTTGGTGGTAAGGCTTATCTTGAC
CACAATTCATTTGACTACTCAAATACTGTAATGAGAACTATAAAATTGGAGCATGTACATTTCAGAGTGTTTTAC
ATTCAACAGGATAAAATCTATTTGCTTTTGACCAAAATGGACATAGAAAACCTGACAATATCAAATGCACAAATG
CCACACATGCTTTTCCCGAATTATCCTACGAAATTCCAATATTTAAATTTTGCCAATAATATCTTAACAGACGAG
TTGTTTAAAAGAACTATCCAACTGCCTCACTTGAAAACTCTCATTTTGAATGGCAATAAACTGGAGACACTTTCT
TTAGTAAGTTGCTTTGCTAACAACACACCCTTGGAACACTTGGATCTGAGTCAAAATCTATTACAACATAAAAAT
GATGAAAATTGCTCATGGCCAGAAACTGTGGTCAATATGAATCTGTCATACAATAAATTGTCTGATTCTGTCTTC
AGGTGCTTGCCCAAAAGTATTCAAATACTTGACCTAAATAATAACCAAATCCAAACTGTACCTAAAGAGACTATT
CATCTGATGGCCTTACGAGAACTAAATATTGCATTTAATTTTCTAACTGATCTCCCTGGATGCAGTCATTTCAGT
AGACTTTCAGTTCTGAACATTGAAATGAACTTCATTCTCAGCCCATCTCTGGATTTTGTTCAGAGCTGCCAGGAA
GTTAAAACTCTAAATGCGGGAAGAAATCCATTCCGGTGTACCTGTGAATTAAAAAATTTCATTCAGCTTGAAACA
TATTCAGAGGTCATGATGGTTGGATGGTCAGATTCATACACCTGTGAATACCCTTTAAACCTAAGGGGAATTAGG
TTAAAAGACGTTCATCTCCACGAATTATCTTGCAACACAGCTCTGTTGATTGTCACCATTGTGGTTATTATGCTA
GTTCTGGGGTTGGCTGTGGCCTTCTGCTGTCTCCACTTTGATCTGCCCTGGTATCTCAGGATGCTAGGTCAATGC
ACACAAACATGGCACAGGGTTAGGAAAACAACCCAAGAACAACTCAAGAGAAATGTCCGATTCCACGCATTTATT
TCATACAGTGAACATGATTCTCTGTGGGTGAAGAATGAATTGATCCCCAATCTAGAGAAGGAAGATGGTTCTATC
TTGATTTGCCTTTATGAAAGCTACTTTGACCCTGGCAAAAGCATTAGTGAAAATATTGTAAGCTTCATTGAGAAA
AGCTATAAGTCCATCTTTGTTTTGTCTCCCAACTTTGTCCAGAATGAGTGGTGCCATTATGAATTTTACTTTGCC
CACCACAATCTCTTCCATGAAAATTCTGATCATATAATTCTTATCTTACTGGAACCCATTCCATTCTATTGCATT
CCCACCAGGTATCATAAACTGAAAGCTCTCCTGGAAAAAAAAGCATACTTGGAATGGCCCAAGGATAGGCGTAAA
TGTGGGCTTTTCTGGGCAAACCTTCGAGCTGCTATTAATGTTAATGTATTAGCCACCAGAGAAATGTATGAACTG
CAGACATTCACAGAGTTAAATGAAGAGTCTCGAGGTTCTACAATCTCTCTGATGAGAACAGATTGTCTA**TAA**AAT
CCCACAGTCCTTGGGAAGTTGGGGACCACATACACTGTTGGGATGTACATTGATACAACCTTTATGATGGCAATT
TG

FIGURE 16

MRLIRNIYIFCSIVMTAEGDAPELPEERELMTNCSNMSLRKVPADLTPATTTLDLSYNLLFQLQSSDFHSVSKLR
VLILCHNRIQQLDLKTFEFNKELRYLDLSNNRLKSVTWYLLAGLRYLDLSFNDFDTMPICEEAGNMSHLEILGLS
GAKIQKSDFQKIAHLHLNTVFLGFRTLPHYEEGSLPILNTTKLHIVLPMDTNFWVLLRDGIKTSKILEMTNIDGK
SQFVSYEMQRNLSLENAKTSVLLLNKVDLLWDDLFLILQFVWHTSVEHFQIRNVTFGGKAYLDHNSFDYSNTVMR
TIKLEHVHFRVFYIQQDKIYLLLTKMDIENLTISNAQMPHMLFPNYPTKFQYLNFANNILTDELFKRTIQLPHLK
TLILNGNKLETLSLVSCFANNTPLEHLDLSQNLLQHKNDENCSWPETVVNMNLSYNKLSDSVFRCLPKSIQILDL
NNNQIQTVPKETIHLMALRELNIAFNFLTDLPGCSHFSRLSVLNIEMNFILSPSLDFVQSCQEVKTLNAGRNPFR
CTCELKNFIQLETYSEVMMVGWSDSYTCEYPLNLRGIRLKDVHLHELSCNTALLIVTIVVIMLVLGLAVAFCCLH
FDLPWYLRMLGQCTQTWHRVRKTTQEQLKRNVRFHAFISYSEHDSLWVKNELIPNLEKEDGSILICLYESYFDPG
KSISENIVSFIEKSYKSIFVLSPNFVQNEWCHYEFYFAHHNLFHENSDHIILILLEPIPFYCIPTRYHKLKALLE
KKAYLEWPKDRRKCGLFWANLRAAINVNVLATREMYELQTFTELNEESRGSTISLMRTDCL

FIGURE 17

CCCTGCGCGGCTGCTGGACCGACGGGCGCACCCAGGTAGGGGGGCGGCTGAGCCGCGCAGTGCGGACCCTCGCGG
GGAACTGCGCCGCCGCCACC**ATG**TCTCAGGAAGGTGTGGAGCTGGAGAAGAGCGTCCGGCGCCTCCGGGAGAAGT
TTCATGGGAAGGTATCCTCCAAGAAGGCGGGGGCTCTGATGAGGAAATTCGGCAGCGACCACACGGGAGTGGGGC
GCTCCATCGTGTACGGGGTAAAGCAAAAAGATGGCCAAGAACTAAGTAACGATCTGGATGCCCAGGATCCACCAG
AAGATATGAAGCAGGACCGGGACATTCAGGCAGTGGCGACCTCCCTCCTGCCACTGACAGAAGCCAACCTACGCA
TGTTTCAACGTGCCCAGGACGACCTTATCCCTGCTGTGGACCGGCAGTTTGCCTGCTCCTCCTGCGACCACGTCT
GGTGGCGCCGCGTGCCCCAGCGGAAGGAGGTATCCCGGTGCCGGAAATGCCGGAAGCGCTACGAGCCAGTGCCAG
CTGACAAGATGTGGGGCCTGGCTGAGTTCCACTGCCCGAAGTGTCGGCACAACTTCCGGGGCTGGGCACAGATGG
GGTCCCCGTCCCCCTGCTACGGGTGCGGCTTCCCCGTGTATCCAACACGGATCCTCCCCCCGCGCCGGGACCGGG
ACCCGGATCGCCGCAGCACCCACACTCACTCCTGCTCAGCTGCCGACTGCTACAACCGGCGAGAGCCCCACGTGC
CTGGGACATCCTGTGCTCACCCCAAGAGCCGGAAGCAGAACCACCTGCCCAAAGTGCTCCACCCCAGCAACCCTC
ACATTAGCAGTGGCCCCACTGTGGCCACCTGCTTGAGCCAGGGTGGCCTCCTGGAAGACCTGGACAACCTCATCC
TGGAGGACCTGAAGGAGGAGGAGGAGGAAGAGGAGGAGGTGGAGGACGAGGAGGGCGGGCCCAGGGAG**TGA**CCCC
TGCCAGGTGCAGATACAAACCAGACACGGTCTGTGGCTACTTTGTGTTATTATAAGATATGAGCTCAAACCGAGA
TATGAATGACCTTGGGGAGCCATCTGAGGCCAAGATATTGACGGGGGGGGATTCCTGGGTCCCATTTTCAGCGCCC
AGGGTCACAGATCCACAGTGGGAAGTTCTGTGGGACACATTGGCACTGAGCCACAAAGAAGGTGTGGCCAGAACA
ACTTGGGCTCCTGCTGACCAATGTCCTCTAGGGCCTAGGGGACAGAGGAACACAGAGTCACAGCTTCAGGGGCCG
AATGAGCATGGCGGCCTTCCTGAGAGAATATGCCCCACCACGAAACTCAGCCCAGTAGACACCATCCTGGTAGCG
GCTTCGGTAGTGGCCGCCGTGGTGCCACACACCGTTGAGGTTGGAGTGGGCACAGGCATGGTACCACCAGCCTCC
CCGCTGGTACAGGGCACAGTTACCTGAGGGGAGAGAGAGAGTCCATGTCCTCTCACCAGAATAAAAGCCTCTACC
TGCACCTCACAGTGCAAGGCTTTTGCCAGGCATCCCCTGGCCCCTCCCATTCTTATTGAATACAAGCCCTGATCT
TCCATCTCCTCAGCAAAAAAATAGGAGCCCTGGCCCCCCAACTTTCTTCAGAGTAATAGCCTTAATTCCTTCCCT
ATCTCCTTACCAAAGTACAAGTCACATCTTTCCCACCTTTTCTGCAAACTAGGAGTCTACCGTTCATTCCTTTAT
CAAAGAAAAGTATCTACTTCCTTTCTAGAATAAGAGTACTAGCTCTCACCCTCTGCCCTTTACTTGAACAGGAGT
CTTGATTCTTTTTTTGCCTCATCAGAGAAGGAATCTGGACTCCCCATCCCCCCCACCAGGATAAAAGTCCTGACCT
TTGTTCTCTTGACGGAATAAAAGCTTGCTTATCCTT

FIGURE 18

MSQEGVELEKSVRRLREKFHGKVSSKKAGALMRKFGSDHTGVGRSIVYGVKQKDGQELSNDLDAQDPPEDMKQDR
DIQAVATSLLPLTEANLRMFQRAQDDLIPAVDRQFACSSCDHVWWRRVPQRKEVSRCRKCRKRYEPVPADKMWGL
AEFHCPKCRHNFRGWAQMGSPSPCYGCGFPVYPTRILPPRRDRDPDRRSTHTHSCSAADCYNRREPHVPGTSCAH
PKSRKQNHLPKVLHPSNPHISSGPTVATCLSQGGLLEDLDNLILEDLKEEEEEEEEVEDEEGGPRE

FIGURE 19

GGTGGTCCAGGAAAAGGCGCTCCGTC**ATG**GGGATCCAGACGAGCCCCGTCCTGCTGGCCTCCCTGGGGGTGGGGC
TGGTCACTCTGCTCGGCCTGGCTGTGGGCTCCTAC TTGGTTCGGAGGTCCCGCCGGCCTCAGGTCACTCTCCTGG
ACCCCAATGAAAAGTACCTGCTACGACTGCTAGAC AAGACGACTGTGAGCCACAACACCAAGAGGTTCCGCTTTG
CCCTGCCCACCGCCCACCACACTCTGGGGCTGCCT GTGGGCAAACATATCTACCTCTCCACCCGAATTGATGGCA
ACCTGGTCATCAGGCCATACACTCCTGTCACCAGT GATGAGGATCAAGGCTATGTGGATCTTGTCATCAAGGTCT
ACCTGAAGGGTGTGCACCCCAAATTTCCTGAGGGA GGGAAGATGTCTCAGTACCTGGATAGCCTGAAGGTTGGGC
ATGTGGTGGAGTTTCGGGGGCCAAGCGGGTTGCTC ACTTACACTGGAAAAGGGCATTTTAACATTCAGCCCAACA
AGAAATCTCCACCAGAACCCCGAGTGGCGAAGAAA CTGGGAATGATTGCCGGCGGGACAGGAATCACCCCAATGC
TACAGCTGATCCGGGCCATCCTGAAAGTCCCTGAAGATCCAACCCAGTGCTTTCTGCTTTTTGCCAACCAGACAG
AAAAGGATATCATCTTGCGGGAGGACTTAGAGGAACTGCAGGCCCGCTATCCCAATCGCTTTAAGCTCTGGTTCA
CTCTGGATCATCCCCCAAAAGATTGGGCCTACAGCAAGGGCTTTGTGACTGCCGACATGATCCGGGAACACCTGC
CCGCTCCAGGGGATGATGTGCTGGTACTGCTTTGTGGGCCACCCCCAATGGTGCAGCTGGCCTGCCATCCCAACT
TGGACAAACTGGGCTACTCACAAAAGATGCGATTCACCTAC**TGA**GCATCCTCCAGCTTCCCTGGTGCTGTTCGCT
GCAGTTGTTCCCCATCAGTACTCAAGCACTATAAGCCTTAGATTCCTTTCCTCAGAGTTTCAGGTTTTTTCAGTT
ACATCTAGAGCTGAAATCTGGATAGTACCTGCAGGAACAATATTCCTGTAGCCATGGAAGAGGCCCAAGGCTCAG
TCACTCCTTGGATGGCCTCCTAAATCTCCCCGTGGCAACAGGTCCAGGAGAGGCCCATGGAGCAGTCTCTTCCAT
GGAGTAAGAAGGAAGGGAGCATGTACGCTTGGTCCAAGATTGGCTAGTTCCTTGATAGCATCTTACTCTCACCTT
CTTTGTGTCTGTGATGAAAGGAACAGTCTGTGCAATGGGTTTTACTTAAACTTCACTGTTCAACCTATGAGCAAA
TCTGTATGTGTGAGTATAAGTTGAGCATAGCATAC TTCCAGAGGTGGTCTTATGGAGATGGCAAGAAAGGAGGAA
ATGATTTCTTCAGATCTCAAAGGAGTCTGAAATATCATATTTCTGTGTGTGTCTCTCTCAGCCCCTGCCCAGGCT
AGAGGGAAACAGCTACTGATAATCGAAACTGCTGTTTGTGGCAGGAACCCCTGGCTGTGCAAATAATACTGGCT
GAGGCCCCTGTGTGATATTGAAAAAAAA

FIGURE 20

MGIQTSPVLLASLGVGLVTLLGLAVGSYLVRRSRRPQVTLLDPNEKYLLRLLDKTTVSHNTKRFRFALPTAHHTL
GLPVGKHIYLSTRIDGNLVIRPYTPVTSDEDQGYVDLVIKVYLKGVHPKFPEGGKMSQYLDSLKVGHVVEFRGPS
GLLTYTGKGHFNIQPNKKSPPEPRVAKKLGMIAGGTGITPMLQLIRAILKVPEDPTQCFLLFANQTEKDIILRED
LEELQARYPNRFKLWFTLDHPPKDWAYSKGFVTADMIREHLPAPGDDVLVLLCGPPPMVQLACHPNLDKLGYSQK
MRFTY

FIGURE 21

ACCGCGGAAAGC**ATG**TTGTGGCTGTTCCAATCGCTCCTGTTTGTCTTCTGCTTTGGCCCAGGGAATGTAGTTTCA
CAAAGCAGCTTAACCCCATTGATGGTGAACGGGATTCTGGGGGAGTCAGTAACTCTTCCCCTGGAGTTTCCTGCA
GGAGAGAAGGTCAACTTCATCACTTGGCTTTTCAATGAAACATCTCTTGCCTTCATAGTACCCCATGAAACCAAA
AGTCCAGAAATCCACGTGACTAATCCGAAACAGGGAAAGCGACTGAACTTCACCCAGTCCTACTCCCTGCAACTC
AGCAACCTGAAGATGGAAGACACAGGCTCTTACAGAGCCCAGATATCCACAAAGACCTCTGCAAAGCTGTCCAGT
TACACTCTGAGGATATTAAGACAACTGAGGAACATACAAGTTACCAATCACAGTCAGCTATTTCAGAATATGACC
TGTGAGCTCCATCTGACTTGCTCTGTGGAGGATGCAGATGACAATGTCTCATTCAGATGGGAGGCCTTGGGAAAC
ACACTTTCAAGTCAGCCAAACCTCACTGTCTCCTGGGACCCCAGGATTTCCAGTGAACAGGACTACACCTGCATA
GCAGAGAATGCTGTCAGTAATTTATCCTTCTCTGTCTCTGCCCAGAAGCTTTGCGAAGATGTTAAAATTCAATAT
ACAGATACCAAAATGATTCTGTTTATGGTTTCTGGGATATGCATAGTCTTCGGTTTCATCATACTGCTGTTACTT
GTTTTGAGGAAAAGAAGAGATTCCCTATCTTTGTCTACTCAGCGAACACAGGGCCCCGAGTCCGCAAGGAACCTA
GAGTATGTTTCAGTGTCTCCAACGAACAACACTGTGTATGCTTCAGTCACTCATTCAAACAGGGAAACAGAAATC
TGGACACCTAGAGAAAATGATACTATCACAATTTACTCCACAATTAATCATTCCAAAGAGAGTAAACCCACTTTT
TCCAGGGCAACTGCCCTTGACAATGTCGTG**TAA**GTTGCTGAAAGGCCTCAGAGGAATTCGGGAATGACACGTCTT
CTGATCCCATGAGACAGAACAAAGAACAGGAAGCTTGGTTCCTGTTGTTCCTGGCAACAGAATTTGAATATCTAG
GATAGGATGATCACCTCCAGTCCTTCGGACTTAAACCTGCCTACCTGAGTCAAACACCTAAGGATAACATCATTT
CCAGCATGTGGTTCAAATAATATTTTCCAATCCACTTCAGGCCAAAACATGCTAAAGATAACACACCAGCACATT
GACTCTCTCTTTGATAACTAAGCAAATGGAATTATGGTTGACAGAGAGTTTATGATCCAGAAGACAACCACTTCT
CTCCTTTTAGAAAGCAGCAGGATTGACTTATTGAGAAATAATGCAGTGTGTTGGTTACATGTGTAGTCTCTGGAG
TTGGATGGGCCCATCCTGATACAAGTTGAGCATCCCTTGTCTGAAATGCTTGGGATTAGAAATGTTTCAGATTTC
AATTTTTTTTCAGATTTTGGAATATTTGCATTATATTTAGCGGTTGAGTATCCAAATCCAAAAATCCAAAATTCA
AAATGCTCCAATAAGCATTTCCCTTGAGTTTCATTGATGTCGATGCAGTGCTCAAAATCTCAGATTTTGGAGCAT
TTTGGATATTGGATTTTTGGATTTGGGATGCTCAACTTGTACAATGTTTATTAGACACATCTCCTGGGACATACT
GCCTAACCTTTTGGAGCCTTAGTCTCCCAGACTGAAAAAGGAAGAGGATGGTATTACATCAGCTCCATTGTTTGA
GCCAAGAATCTAAGTCATCCCTGACTCCAGTGTCTTTGTCACCAGGCCCTTTGGACTCTACCTCAGAAATATTTC
TTGGACCTTCCACTTCTCCTCCAACTCCTTGACCACCATCCTGTATCCAACCATCACCACCTCTAACCTGAATCC
TACCTTAAGATCAGAACAGTTGTCCTCACTTTTGTTCTTGTCCCTCTCCAACCCACTCTCCACAAGATGGCCAGA
GTAATGTTTTTAATATAAATTGGATCCTTCAGTTTCCTGCTTAAAACCCTGCAGGTTTCCCAATGCACTCAGAAA
GAAATCCAGTTTCCATGGCCCTGGATGGTCTGGCCCACCTCCAGCCTCAGCTAGCATTACCCTTCTGACACTCTC
TATGTAGCCTCCCTGATCTTCTTTCAGCTCCTCTATTAAAGGAAAGTTCTTTATGTTAATTATTTACATCTTCC
TGCAGGCCCTTCCTCTGCCTGCTGGGGTCCTCCTATTCTTTAGGTTTAATTTTAAATATGTCACCTCCTAAGAGA
AACCTTCCCAGACCACTCTTTCTAAAATGAATCTTCTAGGCTGGGCATGGTGGCTCACACCTGTAATCCCAGTAC
TTTGGGAGGCCAAGGGGGGAGATCACTTGAGGTCAGGAGTTCAAGACCAGCCTGGCCAACTTGGTGAAACCCCGT
CTTTACTAAAAATACAAAAAAATTAGCCAGGCGTGGTGGTGCACCCCTAAAATCCCAGCTACTTGAGAGACTGAG
GCAGGAGAATCGCTTGAACCCAGGAGGTGGAGGTTCCAGTGAGCCAAAATCATGCCAATGTATTCCAGTCTGGGT
GACAGAGTGAGACTCTGTCTCAAAAAATAAATAAATAAAATAAAATGAAATAGATCTTATAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAA

FIGURE 22

MLWLFQSLLFVFCFGPGNVVSQSSLTPLMVNGILGESVTLPLEFPAGEKVNFITWLFNETSLAFIVPHETKSPEI
HVTNPKQGKRLNFTQSYSLQLSNLKMEDTGSYRAQISTKTSAKLSSYTLRILRQLRNIQVTNHSQLFQNMTCELH
LTCSVEDADDNVSFRWEALGNTLSSQPNLTVSWDPRISSEQDYTCIAENAVSNLSFSVSAQKLCEDVKIQYTDTK
MILFMVSGICIVFGFIILLLLVLRKRRDSLSLSTQRTQGPESARNLEYVSVSPTNNTVYASVTHSNRETEIWTPR
ENDTITIYSTINHSKESKPTFSRATALDNVV

FIGURE 23A

GAGAGGACGAGGTGCCGCTGCCTGGAGAATCCTCCGCTGCCGTCGGCTCCCGGAGCCCAGCCCTTTCCTAACCCA
ACCCAACCTAGCCCAGTCCCAGCCGCCAGCGCCTGTCCCTGTCACGGACCCCAGCGTTACCATGCATCCTGCCGT
CTTCCTATCCTTACCCGACCTCAGATGCTCCCTTCTGCTCCTGGTAACTTGGGTTTTTACTCCTGTAACAACTGA
AATAACAAGTCTTGATACAGAGAATATAGATGAAATTTTAAACAATGCTGATGTTGCTTTAGTAAATTTTTATGC
TGACTGGTGTCGTTTCAGTCAGATGTTGCATCCAATTTTTGAGGAAGCTTCCGATGTCATTAAGGAAGAATTTCC
AAATGAAAATCAAGTAGTGTTTGCCAGAGTTGATTGTGATCAGCACTCTGACATAGCCCAGAGATACAGGATAAG
CAAATACCCAACCCTCAAATTGTTTCGTAATGGGATGATGATGAAGAGAGAATACAGGGGTCAGCGATCAGTGAA
AGCATTGGCAGATTACATCAGGCAACAAAAAGTGACCCCATTCAAGAAATTCGGGACTTAGCAGAAATCACCAC
TCTTGATCGCAGCAAAAGAAATATCATTGGATATTTTGAGCAAAAGGACTCGGACAACTATAGAGTTTTTGAACG
AGTAGCGAATATTTTGCATGATGACTGTGCCTTTCTTTCTGCATTTGGGGATGTTTCAAAACCGGAAAGATATAG
TGGCGACAACATAATCTACAAACCACCAGGGCATTCTGCTCCGGATATGGTGTACTTGGGAGCTATGACAAATTT
TGATGTGACTTACAATTGGATTCAAGATAAATGTGTTCCTCTTGTCCGAGAAATAACATTTGAAAATGGAGAGGA
ATTGACAGAAGAAGGACTGCCTTTTCTCATACTCTTTCACATGAAGAAGATACAGAAAGTTTAGAAATATTCCA
GAATGAAGTAGCTCGGCAATTAATAAGTGAAAAAGGTACAATAAACTTTTTACATGCCGATTGTGACAAATTTAG
ACATCCTCTTCTGCACATACAGAAAACTCCAGCAGATTGTCCTGTAATCGCTATTGACAGCTTTAGGCATATGTA
TGTGTTTGGAGACTTCAAAGATGTATTAATTCCTGGAAAACTCAAGCAATTCGTATTTGACTTACATTCTGGAAA
ACTGCACAGAGAATTCCATCATGGACCTGACCCAACTGATACAGCCCCAGGAGAGCAAGCCCAAGATGTAGCAAG
CAGTCCACCTGAGAGCTCCTTCCAGAAACTAGCACCCAGTGAATATAGGTATACTCTATTGAGGGATCGAGATGA
GCTT**TAA**AAACTTGAAAAACAGTTTGTAAGCCTTTCAACAGCAGCATCAACCTACGTGGTGGAAATAGTAAACCT
ATATTTTCATAATTCTATGTGTATTTTTATTTTGAATAAACAGAAAGAAATTTTGGGTTTTTAATTTTTTTCTCC
CCGACTCAAAATGCATTGTCATTTAATATAGTAGCCTCTTAAAAAAAAAAAAAACCTGCTAGGATTTAAAAATAAA
AATCAGAGGCCTATCTCCACTTTAAATCTGTCCTGTAAAAGTTTTATAAATCAAATGAAAGGTGACATTGCCAGA
AACTTACCATTAACTTGCACTACTAGGGTAGGGAGGACTTAGGATGTTTCCTGTGTCGTATGTGCTTTTCTTTCT
TTCATATGATCAATTCTGTTGGTATTTTCAGTATCTCATTTCTCAAAGCTAAAGAGATATACATTCTGGATACTT
GGGAGGGGAATAAATTAAAGTTTTCACACTGTGTACTGTGTTTTACTGATTGGTTGGATATTGCTTATGAAAATT
CCATAGTGGTATTTTTTGGATTCTTAATGTGTAACTTAAACATACTTTGAAGTGGAGGAGAGTCATAAGACAGA
ACATTGGCAGGAATTGTCCTTATGAAACAAGAAAAGAAATGAAAGTATTATTAAGCTTCTGTGTTTGTCTA
AAAATGTGGCATATGGATGGCATTTAAAACTTTGAATGAATTATACCTAAATCTGGGACAGGGAGGTGACAGTGG
AACAGGCTACCAATCAGAACTAGATGACTTTTAAGGCTCCTCCTATTATGAGACTTCAATTTCCAAAGAGAAGAA
CTAGCAGAGAAATTGTATTTCAGTAATTTTAAGCTCCTTCTGTCTTGTAGAGTCTTGTTATAGTTGTATAAATCA
AAAACACAGAATAAGGAACATATTTAACTTTTTTTCATTATAAAATGGTTAGAGGACCCTACCCCCTCTAGATTC
CCTGATTTCCCCAGGCCTGCAGCATACAGTAAGATGGGTCCCTGTGCCAGGCCTCAATACTGCCAGGGAATAAAA
CCAGAGGGAGAGGACCCTCAGTGTCATATCAGGAAGCCCAGTGCCAGAGGACAGACAGGTTCAAAACTGGCTTTT
CCTCTGGGCCTGGGTTGGTGCTATAGGCCAAGGGTCATTTTATACTTGGGTATAAATCAATCCCAGTTTGGGAAA
AGATTATTTTTAAGCTTAAAAGGCTGACATGTGCCATTATATGTAGTATGTAATATATGTAACATCTTCCAATTC
TTTTAAAATAAAATTAATATTTATAATGGATATTTAATGATTGTTATTTTTAAAAACCAGCTTATAATTCCTCGT
TATGCATGATTTATCCAAAGTTTCCATAGTTTTATTCAAAATAATAAATGTTAATAAGGTGATAAGGGGTATATT
TAATGTATTGTATCAAATTGTGAATAAGAAAGTAGGATGGAGCTTCTAGAGGTTGGGCCTTAGTTCTGTTATCC
TCATTGCTTTTAACCAATAAGTTAAATGAAGTTAGAGTTATGGTCTTCAGGTTAGATTATGGACCAGATCTGTGA
GGGTCAGCATGGAAATTCACATTCAACAAGGTAGCACACAGGACCAAGAGCAGCACATGCAATCAACTGGAATAA
TATAGTAATCCTGTAACTGGGTTTGAAAAAATAATCAACAAAGATACAATTCAAGGGTTAGGTTGCAGAGAGCT
GGCTTGAGAGTAGTTATTATGAAAAAGGCCTCAAGGAGTACGTGTTCAGTATGCTCTAAGATGATAAAGTGGCTG
TTAAAAAGGGAGTTGATTTGAGGAAGTATTACTTAGCATTCATGCATATTGGGCTTAGGCTCTAGCCCTGCCACT
ATCATTGTCTTCTCTGGACTGTGAAGTCACTGAGGACAAGGAAACTAAATTTAATGTCTGTATCACTAGTGCCTA
GAATTTCTGGACACTTAGTAGTCACCATCAGGCGTTTATTTAATGAATGAGAAGCAAGTGACCTTGGTTACTTT
TTTACCCTGAGGGGCTCAGCACTCATTAGGACTTGGTGCCTAATTTTATAAAAAGTCACTAAGCTCAAGTGCTTG
GATGAAAGGACAGCGTGGATAAAAAGGTTTTTAAAACATGGATGTTAAGGCTGTTTTGCTTGGAGAAGACTTGGG
ACTGGGACAGTCTTTAGATATTATTTGAAATGCTGGCACTGTCTATCTGGATCCCAGGGCTTGAACTAGGATTTG

FIGURE 23B

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AGGAAGTCACAGGGAAGCAGATTTCAGTCTGACATTTATTCAGTGCAAGTTTTTTGGTGCTGTAGTATATGATGA
AAGATGTAAAGCTGAATAAAGCATTATTTCTGCCCTAGAGTTGTTCACAGCCTAGTCAGGCATATGGATATGTAA
ACAATGACTGTAACGTGTTATAGATGTAAAGACAAAATAAAGGTTAAAGAGGGCATAAAGGAGCACTCAATTGCA
GAGATTTGAGGACATTATTTTTATTTTGAGCTTTAAAAAGATGAATAGGTGTTCTCAGGAGGTAGGGATCTGGCT
GAGAGGGAATAATCTGAGCAAAGGTATGAAACAGCCTAATGCATTAGAGAAAAAAGTTCTTTTAGTAAGGCATTT
GGGGTTGGGGAAGCTAGAAAAAGAAATGGGAGCTGGTCACACAGGGCCTTGTGTGCCAGACTAAGGGGTTTGTAG
TATATATTGTAGGCAGAAGAGATCCATCAACAGATTGCAAGCAAGGAAGTATGTTCACTTTAAAGTTTGAGAAAG
AATAGTGTGGAAGCACGTCTCAAATTTAGACTTACTTGTTCCCCCTCTGAACCGTGAATCAGACCATTTCAGGTA
GAAGTCTTCCCCGGTTTATCTGATCTACTCGGGGCCTCAGGCTTCTCAGCTGGGAAGAGAGGATGCAAGACCAGA
CTGAAGAACACGGTTGAGTCCCCAGAACCAAAAGGGGGCCTTTCTGCTTCTTAGCCAGCTACCTCTTCGAGTTTT
TCAAATTGTGAGGGGGACCATAAAAGGATGGAAACTTTTAGATGACATTCTACAAATTATTTTTTCTTTAAATT
AAAAGAACCTAGCCAATAAGATAGAGAATGGGCATCTAAGGCATCTCAGAGCTCTCTGATGAAGCCAGGTTGTCA
AAGATCATTTGCAAAAGAAGGGAAAACTGGCATGACAAAAGCTACAGAGAGGAGAGTGAAATATAGAAGTGTTTG
AAATGTTCAAGCTCACAATAAGCTTAAATTTATAGAAAATGCTAAGGTTGTCAAGAAGGCTTTTTTTTTTTCTT
TTTTAAACCTGAGGGCAAAAAGGAATGGATAAAGTAGTGTAATGGATTGACAATCAGGAAGAACAGAATAACTCA
GTTTTTTTTTCTCCTACAAGGAGATATGGCTGGACCAAAATAAAATGACATGAAATTGCAAAAATGAAAAT
```

FIGURE 24

RGRGAAAWRILRCRRLPEPSPFLTQPNLAQSQPPAPVPVTDPSVTMHPAVFLSLPDLRCSLLLLVTWVFTPVTTE
ITSLDTENIDEILNNADVALVNFYADWCRFSQMLHPIFEEASDVIKEEFPNENQVVFARVDCDQHSDIAQRYRIS
KYPTLKLFRNGMMMKREYRGQRSVKALADYIRQQKSDPIQEIRDLAEITTLDRSKRNIIGYFEQKDSDNYRVFER
VANILHDDCAFLSAFGDVSKPERYSGDNIIYKPPGHSAPDMVYLGAMTNFDVTYNWIQDKCVPLVREITFENGEE
LTEEGLPFLILFHMKEDTESLEIFQNEVARQLISEKGTINFLHADCDKFRHPLLHIQKTPADCPVIAIDSFRHMY
VFGDFKDVLIPGKLKQFVFDLHSGKLHREFHHGPDPTDTAPGEQAQDVASSPPESSFQKLAPSEYRYTLLRDRDE
L

FIGURE 25

GCTGGAGCCGGGCCGGGGCG**ATG**TGGAGCGCGGGCCGCGGCGGGGCTGCCTGGCCGGTGCTGTTGGGGCTGCTGC
TGGCGCTGTTAGTGCCGGGCGGTGGTGCCGCCAAGACCGGTGCGGAGCTCGTGACCTGCGGGTCGGTGCTGAAGC
TGCTCAATACGCACCACCGCGTGCGGCTGCACTCGCACGACATCAAATACGGATCCGGCAGCGGCCAGCAATCGG
TGACCGGCGTAGAGGCGTCGGACGACGCGAATAGCTACTGGCGGATCCGCGGCGGCTCGGAGGGCGGGTGCCCGT
GCGGGTCCCCGGTGCGCTGCGGGCAGGCGGTGAGGCTCACGCATGTGCTTACGGGCAAGAACCTGCACACGCACC
ACTTCCCGTCGCCGCTGTCCAACAACCAGGAGGTGAGTGCCTTTGGGGAAGACGGCGAGGGCGACGACCTGGACC
TATGGACAGTGCGCTGCTCTGGACAGCACTGGGAGCGTGAGGCTGCTGTGCGCTTACAGCATGTGGGCACCTCTG
TGTTCCTGTCAGTCACGGGTGAGCAGTATGGAAGCCCCATCCGTGGGCAGCATGAGGTCCACGGCATGCCCAGTG
CCAACACGCACAATACGTGGAAGGCCATGGAAGGCATCTTCATCAAGCCTAGTGTGGAGCCCTCTGCAGGTCACG
ATGAACTC**TGA**GTGTGTGGATGGATGGGTGGATGGAGGGTGGCAGGTGGGGCGTCTGCAGGGCCACTCTTGGCAG
AGACTTTGGGTTTGTAGGGGTCCTCAAGTGCCTTTGTGATTAAAGAATGTTGGTCTATGA

FIGURE 26

MWSAGRGGAAWPVLLGLLLALLVPGGGAAKTGAELVTCGSVLKLLNTHHRVRLHSHDIKYGSGSGQQSVTGVEAS
DDANSYWRIRGGSEGGCPCGSPVRCGQAVRLTHVLTGKNLHTHHFPSPLSNNQEVSAFGEDGEGDDLDLWTVRCS
GQHWEREAAVRLQHVGTSVFLSVTGEQYGSPIRGQHEVHGMPSANTHNTWKAMEGIFIKPSVEPSAGHDEL

FIGURE 27

ACGAGGGGAGCTCCGGCTGCGTCTTCCCGCAGCGCTACCCGCC**ATG**CGCCTGCCGCGCCGGGCCGCGCTGGGGCT
CCTGCCGCTTCTGCTGCTGCTGCCGCCCGCGCCGGAGGCCGCCAAGAAGCCGACGCCCTGCCACCGGTGCCGGGG
GCTGGTGGACAAGTTTAACCAGGGGATGGTGGACACCGCAAAGAAGAACTTTGGCGGCGGGAACACGGCTTGGGA
GGAAAAGACGCTGTCCAAGTACGAGTCCAGCGAGATTCGCCTGCTGGAGATCCTGGAGGGGCTGTGCGAGAGCAG
CGACTTCGAATGCAATCAGATGCTAGAGGCGCAGGAGGAGCACCTGGAGGCCTGGTGGCTGCAGCTGAAGAGCGA
ATATCCTGACTTATTCGAGTGGTTTTGTGTGAAGACACTGAAAGTGTGCTGCTCTCCAGGAACCTACGGTCCCGA
CTGTCTCGCATGCCAGGGCGGATCCCAGAGGCCCTGCAGCGGGAATGGCCACTGCAGCGGAGATGGGAGCAGACA
GGGCGACGGGTCCTGCCGGTGCCACATGGGGTACCAGGGCCCGCTGTGCACTGACTGCATGGACGGCTACTTCAG
CTCGCTCCGGAACGAGACCCACAGCATCTGCACAGCCTGTGACGAGTCCTGCAAGACGTGCTCGGGCCTGACCAA
CAGAGACTGCGGCGAGTGTGAAGTGGGCTGGGTGCTGGACGAGGGCGCCTGTGTGGATGTGGACGAGTGTGCGGC
CGAGCCGCCTCCCTGCAGCGCTGCGCAGTTCTGTAAGAACGCCAACGGCTCCTACACGTGCGAAGATGTGGACGA
GTGCTCACTAGCAGAAAAAACCTGTGTGAGGAAAAACGAAACTGCTACAATACTCCAGGGAGCTACGTCTGTGT
GTGTCCTGACGGCTTCGAAGAAACGGAAGATGCCTGTGTGCCGCCGGCAGAGGCTGAAGCCACAGAAGGAGAAAG
CCCGACACAGCTGCCCTCCCGCGAAGACCTG**TAA**TGTGCCGGACTTACCCTTTAAATTATTCAGAAGGATGTCCC
GTGGAAAATGTGGCCCTGAGGATGCCGTCTCCTGCAGTGGACAGCGGCGGGGAGAGGCTGCCTGCTCTCTAACGG
TTGATTCTCATTTGTCCCTTAAACAGCTGCATTTCTTGGTTGTTCTTAAACAGACTTGTATATTTTGATACAGTT
CTTTGTAATAAAATTGACCATTGTAGGTAATCAGGAAAAAAAAAAAAAAAAAAAAA

FIGURE 28

MRLPRRAALGLLPLLLLLPPAPEAAKKPTPCHRCRGLVDKFNQGMVDTAKKNFGGGNTAWEEKTLSKYESSEIRL
LEILEGLCESSDFECNQMLEAQEEHLEAWWLQLKSEYPDLFEWFCVKTLKVCCSPGTYGPDCLACQGGSQRPCSG
NGHCSGDGSRQGDGSCRCHMGYQGPLCTDCMDGYFSSLRNETHSICTACDESCKTCSGLTNRDCGECEVGWVLDE
GACVDVDECAAEPPPCSAAQFCKNANGSYTCEDVDECSLAEKTCVRKNENCYNTPGSYVCVCPDGFEETEDACVP
PAEAEATEGESPTQLPSREDL